



CW High School

Physical Science A

1. The Nature of Science (30.00%)

Learning Targets

1.1 I can design an investigation utilizing the scientific method (problem, research, hypothesis, experiment, analysis and conclusions, communication, independent and dependent variables, constants, controls.)

Learning Target	Descriptor	Definition
4	Proficient	I can design an investigation utilizing the scientific method (problem, research, hypothesis, experiment, analysis and conclusions, communication, independent and dependent variables, constants, controls.)
3	Developing	I can differentiate between the parts of a sound investigation (problem, research, hypothesis, experiment, analysis and conclusions, communication, independent and dependent variables, constants, controls) using examples.
2	Basic	I can identify the parts of a sound investigation (problem, research, hypothesis, experiment, analysis and conclusions, communication, independent and dependent variables, constants, controls.)
1	Minimal	I can list the steps of the Scientific Method.
0	No Evidence	No evidence shown.

1.2 I can interpolate and extrapolate data using tables and graphs.

Learning Target	Descriptor	Definition
4	Proficient	I can interpolate and extrapolate data using tables and graphs.
3	Developing	I can construct tables and graphs using good graphing techniques.
2	Basic	I can explain when each type of graph is used and why tables should be displayed as graphs.
1	Minimal	I can identify the major types of graphs and tables.
0	No Evidence	No evidence shown.

1.3 I can apply the International System of Units to take measurements and convert measurements utilizing scientific notation.

Learning Target	Descriptor	Definition
4	Proficient	I can apply the International System of Units to take measurements and convert measurements utilizing scientific notation.
3	Developing	I can convert measurements within the S.I. System.
2	Basic	I can use tools to take measurements using S.I. System units.
1	Minimal	I identify the basic measurements used within the S.I. System.
0	No Evidence	No evidence shown.



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2. Describing Motion (30.00%)

Learning Targets

2.1 I can synthesize an explanation of relative motion that utilizes scenarios in order to justify my explanation.

Learning Target	Descriptor	Definition
4	Proficient	I can synthesize an explanation of relative motion that utilizes scenarios in order to justify my explanation.
3	Developing	I can cite evidence of relative motion.
2	Basic	I can describe relative motion.
1	Minimal	I can define motion.
0	No Evidence	No evidence shown.

2.2 I can compare and contrast instantaneous, average, and constant speed utilizing graphical representations in my comparison.

Learning Target	Descriptor	Definition
4	Proficient	I can compare and contrast instantaneous, average, and constant speed utilizing graphical representations in my comparison.
3	Developing	I can explain instantaneous, average, and constant speed utilizing multiple examples in my explanation.
2	Basic	I can identify examples of instantaneous, average, and constant speed.
1	Minimal	I can define instantaneous, average, and constant speed.
0	No Evidence	No evidence shown.

2.3 I can differentiate between and calculate speed, velocity, and acceleration using data.

Learning Target	Descriptor	Definition
4	Proficient	I can differentiate between and calculate speed, velocity, and acceleration using data.
3	Developing	I can explain how changing factors in each equation will alter the outcomes of various speeds, velocities, and accelerations.
2	Basic	I can calculate speeds, velocities, and accelerations given 2 of the 3 factors for each.
1	Minimal	I can define speed, velocity, and acceleration, and identify the equation and units associated with each.
0	No Evidence	No evidence shown.

2.4 I can construct and interpret graphs illustrating speed, velocity, and acceleration.



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Learning Target	Descriptor	Definition
4	Proficient	I can construct and interpret graphs illustrating speed, velocity, and acceleration.
3	Developing	I can construct accurate graphs of speed, velocity, and acceleration.
2	Basic	I can explain the meanings of slopes of lines on different graphs.
1	Minimal	Identify components of a complete graph for speed, velocity, and acceleration.
0	No Evidence	No evidence shown.

2.5 I can diagram projectile motion relating the horizontal and vertical velocities to the motion of the object.

Learning Target	Descriptor	Definition
4	Proficient	I can diagram projectile motion relating the horizontal and vertical velocities to the motion of the object.
3	Developing	I can use an experiment to verify the impact of gravity on projectile motion.
2	Basic	I can explain how the lack of relationship between the x velocity and y velocity, and how that impacts the path of an object.
1	Minimal	I can define what a projectile is and define projectile motion.
0	No Evidence	No evidence shown.

3. Forces (30.00%)

Learning Targets

3.1 I can differentiate between balanced and unbalanced forces using explanations and force diagrams

Learning Target	Descriptor	Definition
4	Proficient	I can differentiate between balanced and unbalanced forces using explanations and force diagrams
3	Developing	I can model the forces acting on an object through a force diagram.
2	Basic	I can identify whether or not forces are balanced and unbalanced.
1	Minimal	I can define force, balanced, and unbalanced forces.
0	No Evidence	No evidence shown.

3.2 I can evaluate scenarios in order to justify which of Newton's Laws are in action and verify the law of conservation of momentum.

Learning Target	Descriptor	Definition
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Learning Target	Descriptor	Definition
4	Proficient	I can evaluate scenarios in order to justify which of Newton's Laws are in action and verify the law of conservation of momentum.
3	Developing	I can explain how altering the factors in the momentum equation and Newton's 2nd Law will impact the product of each. I can also explain each Newton's Laws of Motion using examples.
2	Basic	I can identify examples of Newton's Laws of Motion and calculate momentum and Newton's 2nd Law.
1	Minimal	I can define momentum and each of Newton's Laws of Motion.
0	No Evidence	No evidence shown.

3.3 I can justify the existence of gravity using Newton's Law of Gravitation, the General Theory of Relativity, providing thoughtful experiments as validation.

Learning Target	Descriptor	Definition
4	Proficient	I can justify the existence of gravity using Newton's Law of Gravitation, the General Theory of Relativity, providing thoughtful experiments as validation.
3	Developing	I can validate the impact of gravity on different objects through conceptual models and thought experiments.
2	Basic	I can explain gravity in terms of General Theory of Relativity.
1	Minimal	I can identify the factors that make up Newton's Law of Gravitation, and how changing each will impact the force of gravity.
0	No Evidence	No evidence shown.

3.4 I can construct a device that will mitigate the force felt by an occupant inside during a collision. This device will be diagramed and explained using the terms air resistance, momentum, each of Newton's Laws in order to justify the design.

Learning Target	Descriptor	Definition
4	Proficient	I can construct a device that will mitigate the force felt by an occupant inside during a collision. This device will be diagramed and explained using the terms air resistance, momentum, each of Newton's Laws in order to justify the design.
3	Developing	I can explain how the device I constructed will protect an occupant inside using non-scientific terms.
2	Basic	I can construct a device that will protect an occupant inside.
1	Minimal	I can design a device that will protect an occupant inside.
0	No Evidence	No evidence shown.



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4. English Learning Target (10.00%)

Learning Targets

4.1 I can read to identify and explain the central idea of a topic-specific text while also determining supporting details used and summarizing information accurately.

Learning Target	Descriptor	Definition
4	Proficient	I can read to identify and explain the central idea of a topic-specific text while also determining supporting details used and summarizing information accurately.
3	Developing	I can read to identify and explain the central idea of a topic-specific text while also determining supporting details used.
2	Basic	I can read to identify the central idea of a topic-specific text while also determining supporting details used.
1	Minimal	I can read to identify the central idea of a topic-specific text.
0	No Evidence	No evidence shown.

4.2 I can produce clear and coherent writing, with sound conventions and mechanics, in which the development, organization, and style are appropriate to the task.

Learning Target	Descriptor	Definition
4	Proficient	I can produce clear and coherent writing, with sound conventions and mechanics, in which the development, organization, and style are appropriate to the task.
3	Developing	I can produce coherent writing, with minimal errors in conventions and mechanics, in which the development and organization are appropriate to the task.
2	Basic	I can produce coherent writing, with few errors in conventions and mechanics, with evident organization and appropriate to the task.
1	Minimal	I can produce coherent writing appropriate to the task.
0	No Evidence	No evidence shown.

Submitted on 8/2/2022 by